

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended) An information processing method for processing a display of a plurality of objects within an electronic structured document to allow a command text to be used for both vertically-arrayed text and horizontally-arrayed text, the method comprising the steps of:

analyzing drawing information including information of at least one object that can be displayed and layout designating information for specifying a relative position direction with respect to a direction of arranging the object within the electronic structured document;

determining a relative placing position of the object in a desired drawing area of the electronic structured document based on layout definition information corresponding to the layout designating information obtained by the analysis of the drawing information;

generating ~~real~~ object display position information corresponding to the relative placing position of the object responsive to the arranging direction; and

displaying the object within the electronic structured document, wherein

the relative position direction is one of vertical and horizontal.

Claim 2 (Currently Amended) The information processing method according to claim 1, wherein the layout definition information includes information indicating a size of the drawing area; and

the drawing area and the relative placing position of the object in the drawing area are converted into ~~a real~~ an object display position.

Claim 3 (Currently Amended) The information processing method according to claim 1, wherein the object is displayed based on the ~~real~~ object display position.

Claim 4 (Currently Amended) The information processing method according to claim 1, wherein

the relative placing position of the object is updated in response to a request for changing the drawing direction of the object; and

the updated relative placing position of the object is converted to ~~a real~~ an object display position.

Claim 5 (Currently Amended) The information processing method according to claim 1, wherein

the plurality of objects comprises a first object and a second object;

a relative placing position of the first object is determined based on a layout definition information of [[a]] the first object; and

a relative placing position of the second object is

determined responsive to the determined relative placing position of the first object.

Claim 6 (Currently Amended) An information processing apparatus for processing a display of a plurality of objects within an electronic structured document to allow a command text to be used for both vertically-arrayed text and horizontally-arrayed text, the apparatus comprising:

means for analyzing drawing information including information of at least one object that can be displayed and layout designating information for specifying a relative position direction with respect to a direction of arranging the object within the electronic structured document;

means for determining a relative placing position of the object in a desired drawing area of the electronic structured document based on layout definition information corresponding to the layout designating information obtained by the analysis of the drawing information;

means for generating ~~real~~ object display position information corresponding to the relative placing position of the object in response to the arranging direction; and

display means for displaying the object within the electronic structured document, wherein

the relative position direction is one of vertical and horizontal.

Claim 7 (Currently Amended) The information processing apparatus according to claim 6, wherein

the layout definition information includes the information indicating the size of the drawing area; and

the generating means converts the drawing area and the relative placing position of the object in the drawing area into ~~a real~~ an object display position.

Claim 8 (Currently Amended) The information processing apparatus according to claim 6, further comprising:

means for displaying the object based on the ~~real~~ object display position.

Claim 9 (Currently Amended) The information processing apparatus according to claim 6, wherein

the relative placing position determining means ~~of the object~~ updates the relative placing position of the object in response to a request for changing the drawing direction of the object; and

the generating means converts the updated relative placing position of the object to ~~a real~~ an object display position.

Claim 10 (Previously Presented) The information processing apparatus according to claim 6, further comprising means for inputting a request for changing the drawing direction of the object.

Claim 11 (Previously Presented) The information processing apparatus according to claim 6, wherein

the plurality of objects comprises a first object and a

second object;

the placing position decision means determines a relative placing position of the first object based on layout definition information of the first object; and

the placing position decision means determines a relative placing position of the second object responsive to the determined relative placing position of the first object.

Claim 12 (Currently Amended) An information processing method for processing a display of a plurality of objects within an electronic structured document to allow a command text to be used for both vertically-arrayed text and horizontally-arrayed text, the method comprising the steps of:

generating object information of at least one object that can be displayed;

generating layout designating information specifying a relative position direction with respect to an arranging direction of the object;

generating drawing information at least including the object information and the layout designating information; and

displaying the object within the electronic structured document, wherein

the relative position direction is one of vertical and horizontal.

Claim 13 (Currently Amended) The information processing method according to claim 12, wherein the layout designating information includes information representing a size of ~~the~~ a

drawing area of the electronic structured document.

Claim 14 (Previously Presented) The information processing method according to claim 12, wherein the drawing information is distributed.

Claim 15 (Currently Amended) An information processing apparatus for processing a display of a plurality of objects within an electronic structured document to allow a command text to be used for both vertically-arrayed text and horizontally-arrayed text, the apparatus comprising:

means for generating object information of at least one object that can be displayed;

means for generating layout designating information specifying a relative position direction with respect to an arranging direction of the object;

means for generating drawing information at least including the object information and the layout designating information; and

display means for displaying the object within the electronic structured document, wherein

the relative position direction is one of vertical and horizontal.

Claim 16 (Currently Amended) The information processing apparatus according to claim 15, wherein the layout designating information generating means includes information representing a size of ~~the~~ a drawing area of the electronic structured

document.

Claim 17 (Previously Presented) The information processing apparatus according to claim 15, further comprising means for distributing the drawing information.

Claim 18 (Currently Amended) A medium for causing an information processing apparatus to execute a program for processing a display of a plurality of objects within an electronic structured document to allow a command text to be used for both vertically-arrayed and horizontally-arrayed text, the program including the steps of:

analyzing drawing information at least including information of at least one object that can be displayed and layout designating information for specifying a relative position direction with respect to a direction of arranging the object;

determining a relative placing position of the object in a desired drawing area based on layout definition information corresponding to the layout designating information obtained on analysis of the drawing information;

generating ~~real~~ object display position information corresponding to the relative placing position of the object responsive to the arranging direction; and

displaying the object within the electronic structured document, wherein

the relative position direction is one of vertical and horizontal.

Claim 19 (Currently Amended) A medium for causing an information processing apparatus to execute a program for processing a display of a plurality of objects within an electronic structured document to allow a command text to be used for both vertically-arrayed and horizontally-arrayed text, the program including the steps of:

generating information of at least one object that can be displayed;

generating layout designating information specifying a relative position direction with respect to an arranging direction of the object;

generating drawing information at least including the object information and the layout designating information; and

displaying the object within the electronic structured document, wherein

the relative position direction is one of vertical and horizontal.

Claim 20 (Currently Amended) An information processing method for processing a display of a plurality of objects within an electronic structured document to allow a command text to be used for both vertically-arrayed text and horizontally-arrayed text, the method comprising the steps of:

analyzing drawing information at least including information containing at least one object that can be displayed, information pertinent to a size of the object in a line direction and in a line feed direction, and information



pertinent to a layout;

acquiring coordinate information pertinent to a display start position of the object in a drawing area of the electronic structured document based on a result of the analysis;

converting the coordinate information pertinent to the display start position based on the layout-related information obtained by the result of the analysis;

converting the coordinate information pertinent to the converted display start position into ~~real~~ object drawing coordinate information on the drawing area; and

displaying the object within the electronic structured document, wherein

the information pertinent to a layout includes a relative position direction; and

the relative position direction is one of vertical and horizontal.

Claim 21 (Currently Amended) The information processing method according to claim 20, wherein

the drawing information further includes ~~the~~ information pertinent to a size of the drawing area in the line direction and in the line feed direction; and

the coordinate information pertinent to the display start position is converted into the ~~real~~ object drawing coordinate information in the drawing area based on the information pertinent to the sizes in the line direction and in the line feed direction of the drawing area.

Claim 22 (Currently Amended) The information processing method according to claim 21, wherein when the object is horizontally written the ~~real~~ object drawing coordinate information is used.

Claim 23 (Currently Amended) The information processing method according to claim 21, wherein when the object is vertically written a difference obtained on subtracting a coordinate value in the line direction of the ~~real~~ object drawing coordinate information from the size in the line feed direction of the drawing area as the coordinate value in the line direction of the ~~real~~ object drawing coordinate information.

Claim 24 (Currently Amended) The information processing method according to claim 20, wherein the object is represented on display means based on the ~~real~~ object drawing coordinate information.

Claim 25 (Currently Amended) The information processing method according to claim 20, wherein

the plurality of objects comprises a first object and a second object; and

when it is verified that the second object is to be displayed on the first object the drawing start coordinate information of the second object is generated based on the information pertinent to the size of the first object in the

line direction and in the line feed direction and on the layout-related information.

Claim 26 (Previously Presented) The information processing method according to claim 25, wherein the second object is drawn one of upstream and downstream of the first object based on the drawing start coordinate information of the second object.

Claim 27 (Currently Amended) The information processing method according to claim 20, wherein

the plurality of objects further comprises at least one decorative object; and

when it is verified that the decorative object is to be displayed on the object ~~the~~ a drawing start coordinate information of the decorative object is generated based on the information pertinent to the size of the object in the line direction and in the line feed direction and on the layout-related information.

Claim 28 (Previously Presented) The information processing method according to claim 27, wherein the decorative object is drawn one of upstream and downstream of the object based on the drawing start coordinate information of the decorative object.

Claim 29 (Currently Amended) An information processing method for processing a display of a plurality of objects

within an electronic structured document to allow a command text to be used for both vertically-arrayed text and horizontally-arrayed text, the method comprising the steps of:

capturing in storage means drawing information including information containing at least one object that has been transmitted and that can be displayed, information pertinent to a size in a line direction and in a line feed direction of the object, and layout-related information;

analyzing the drawing information stored in the storage means and acquiring coordinate information pertinent to a display start position of the object in a drawing area of the electronic structured document based on a result of the analysis;

converting the coordinate information pertinent to the display start position based on the layout-related information acquired by the result of analysis; and

displaying the object within the electronic structured document on display means based on ~~real~~ object drawing coordinate information, wherein

the layout-related information includes a relative position direction; and

the relative position direction is one of vertical and horizontal.

Claim 30 (Currently Amended) The information processing method according to claim 29, wherein

the transmitted drawing information further includes information pertinent to a size in the line direction and in

the line feed direction of the drawing area; and

the coordinate information pertinent to the converted display start position is converted into the ~~real~~ object drawing coordinate information on the drawing area based on the information pertinent to the size in the line direction and in the line feed direction of the drawing area.

Claim 31 (Currently Amended) The information processing method according to claim 29, wherein when the object is horizontally arranged the ~~real~~ object drawing coordinate information is used.

Claim 32 (Currently Amended) The information processing method according to claim 29, wherein when the object is horizontally arranged a difference obtained on subtracting the ~~real~~ object drawing coordinate information from the size in the line feed direction of the drawing area is used as the coordinate value in the line direction of the ~~real~~ object drawing coordinate information.

Claim 33 (Currently Amended) The information processing method according to claim 29, wherein

the plurality of objects comprises a first object and a second object; and

when it is verified that the second object is to be demonstrated on the first object the drawing start coordinate information of the second ~~further~~ object is generated based on the information pertinent to the size in the line direction and

in the line feed direction of the first object and the layout-related information.

Claim 34 (Previously Presented) The information processing method according to claim 33, wherein the second object is represented one of upstream and downstream of the first object based on the drawing start coordinate information of the second object.

Claim 35 (Previously Presented) The information processing method according to claim 29, wherein

the plurality of objects further comprises a decorative object; and

when it is verified that the decorative object is to be added to the object the drawing start coordinate information of the decorative object is generated based on the information pertinent to the size in the line direction and in the line feed direction of the object and on the layout-related information.

Claim 36 (Previously Presented) The information processing method according to claim 35, wherein the decorative object is drawn one of upstream and downstream of the object based on the drawing start coordinate information of the decorative object.

Claim 37 (Currently Amended) An information processing apparatus for processing a display of a plurality of objects

within an electronic structured document to allow a command text to be used for both vertically-arrayed text and horizontally-arrayed text, the apparatus comprising:

display means;

receiving means for receiving drawing information including information containing at least one object that has been transmitted and that can be displayed, information pertinent to a size in a line direction and in a line feed direction of the object, and layout-related information;

storage means for storing the drawing information received by the receiving means;

signal processing means for analyzing the drawing information read out from the storage means, acquiring coordinate information pertinent to a display start position of the object in a drawing area of the electronic structured document based on a result of the analysis, converting the coordinate information pertinent to the display start position based on the layout-related information acquired by the results of analysis, and for converting the coordinate information pertinent to the converted display start position into ~~the real object~~ drawing coordinate information on the drawing area of ~~the display means~~; and

control means for displaying the object within the electronic structured document on the display means based on the ~~real object~~ drawing coordinate information from the signal processing means, wherein

the layout information includes a relative position direction; and

the relative position direction is one of vertical and horizontal.

Claim 38 (Currently Amended) The information processing apparatus according to claim 37, wherein

the transmitted drawing information further includes ~~the~~ information on the size in the line direction and in the line feed direction of the drawing area; and

the signal processing means converts the coordinate information pertinent to the converted display start position into the ~~real~~ object drawing coordinate information on the drawing area based on the information pertinent to the size in the line direction and in the line feed direction of the drawing area.

Claim 39 (Currently Amended) The information processing apparatus according to claim 37, wherein when the object is horizontally arranged the control means uses the ~~real~~ object drawing coordinate information to display the object ~~on the display means~~.

Claim 40 (Currently Amended) The information processing apparatus according to claim 37, wherein when the object is horizontally arranged the control means uses a difference obtained on subtracting the ~~real~~ object drawing coordinate information from the size in the line feed direction of the drawing area as the coordinate value in the line direction of the ~~real~~ object drawing coordinate information to display the



~~object on the display means.~~

Claim 41 (Currently Amended) The information processing apparatus according to claim 37, wherein

the plurality of objects comprises a first object and a second object; and

when it is verified that the second object is to be demonstrated on the first object the drawing start coordinate information of the ~~further~~ second object is generated based on the information pertinent to the size in the line direction and in the line feed direction of the first object and the layout-related information.

Claim 42 (Previously Presented) The information processing apparatus according to claim 41, wherein the control means displays the second object one of upstream and downstream of the first object based on the drawing start coordinate information of the second object from the signal processing means.

Claim 43 (Currently Amended) The information processing apparatus according to claim 37, wherein

the plurality of objects further comprises a decorative object; and

when it is verified that the decorative object is to be added to the object the signal processing means generates the drawing start coordinate information of the decorative object based on the information pertinent to the size in the line

direction and in the line feed direction of the object and on the layout-related information.

Claim 44 (Previously Presented) The information processing apparatus according to claim 43, wherein the control means displays the decorative object one of upstream and downstream of the object based on the drawing start coordinate information of the decorative object from the signal processing means.

Claim 45 (Currently Amended) An information processing apparatus for processing a display of a plurality of objects within an electronic structured document to allow a command text to be used for both vertically-arrayed text and horizontally-arrayed text, the apparatus comprising:

means for reading out drawing information from storage means storing the drawing information, the drawing information including information containing at least one object that has been transmitted and that can be displayed, information pertinent to a size in a line direction and in a line feed direction of the object, and layout-related information;

display means for displaying object within the electronic structured document;

signal processing means for analyzing the drawing information read out from the storage means, acquiring coordinate information pertinent to a display start position of the object in a drawing area of the electronic structured document based on result of the analysis, converting the

coordinate information pertinent to the display start position based on the layout-related information acquired by the results of analysis, and for converting the coordinate information pertinent to the converted display start position into ~~real~~ object drawing coordinate information ~~on a~~ within the drawing area of the ~~display means~~ electronic structured document; and

control means for displaying the object ~~on~~ within the electronic structured document on the display means based on the ~~real~~ object drawing coordinate information from the signal processing means, wherein

the layout-related information includes a relative position direction; and

the relative position direction is one of vertical and horizontal.

Claim 46 (Currently Amended) The information processing apparatus according to claim 45, wherein

the drawing information stored in the recording medium further includes the information on the size in the line direction and in the line feed direction of the drawing area; and

the signal processing means converts the coordinate information pertinent to the converted display start position into the ~~real~~ object drawing coordinate information on the drawing area based on the information pertinent to the size in the line direction and in the line feed direction of the drawing area.

Claim 47 (Currently Amended) The information processing apparatus according to claim 45, wherein when the object is horizontally arranged the control means uses the ~~real~~ object drawing coordinate information to display the object on the display means.

Claim 48 (Currently Amended) The information processing apparatus according to claim 45, wherein when the object is horizontally arranged the control means uses a difference obtained by subtracting the ~~real~~ object drawing coordinate information from the size in the line feed direction of the drawing area as the coordinate value in the line direction of the ~~real~~ object drawing coordinate information to display the object ~~on the display means~~.

Claim 49 (Previously Presented) The information processing apparatus according to claim 45, wherein

the plurality of objects comprises a first object and a second object; and

when it is verified that the second object is to be drawn on the first object the drawing start coordinate information of the second object is generated based on the information pertinent to the size in the line direction and in the line feed direction of the object and on the layout-related information.

Claim 50 (Currently Amended) The information processing apparatus according to claim 49, wherein the control means

displays the second object one of upstream and downstream of the first object based on the drawing start coordinate information of the second object from the signal processing means.

Claim 51 (Previously Presented) The information processing apparatus according to claim 45, wherein

the plurality of objects further includes a decorative object; and

when it is verified that the decorative object is to be added to the object the signal processing means generates the drawing start coordinate information of the decorative object based on the information pertinent to the size in the line direction and in the line feed direction of the object and on the layout-related information.

Claim 52 (Previously Presented) The information processing apparatus according to claim 51, wherein the control means displays the decorative object one of upstream and downstream of the object based on the drawing start coordinate information of the decorative object from the signal processing means.